

# Citizen Science

## The Value of Collaboration

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# Perspectives on Citizen Science

For scientists:

- ▶ Build Education and Awareness in participants (advocates for science?)
- ▶ Gain an inexpensive source of labor
- ▶ Obtain a larger pool of observers

For citizens:

- ▶ Derive greater value from an avocation
- ▶ Expand personal knowledge/become amateur scientists
- ▶ Create or become informed advocates

# Begin with a Simple Definition

Citizen Science is the collection of scientific data by individuals who are not professional scientists.

# Examples of Citizen Science

Over 700 projects worldwide

- Universities
- National, State, and local governments
- Research Institutes
- Scientific societies
- Conservation organizations

Engage bird watchers, gardeners, hikers, hunters, amateur astronomers, rock hounds, farmers, forest landowners, corporate clubs

# Notable Examples



Cornell Laboratory  
Of Ornithology, Audubon,  
British Trust for Birds



Monarch Project



Project Budburst

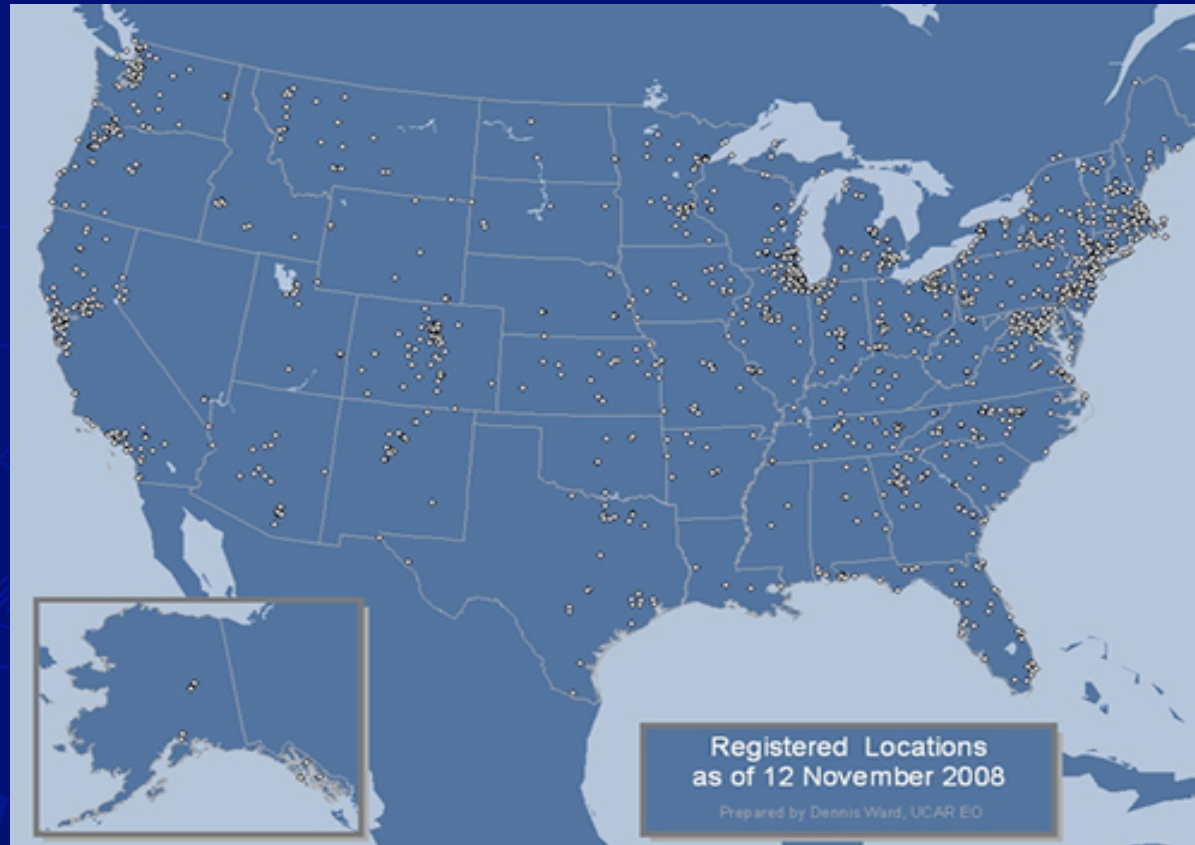


Audubon Christmas Bird Counts





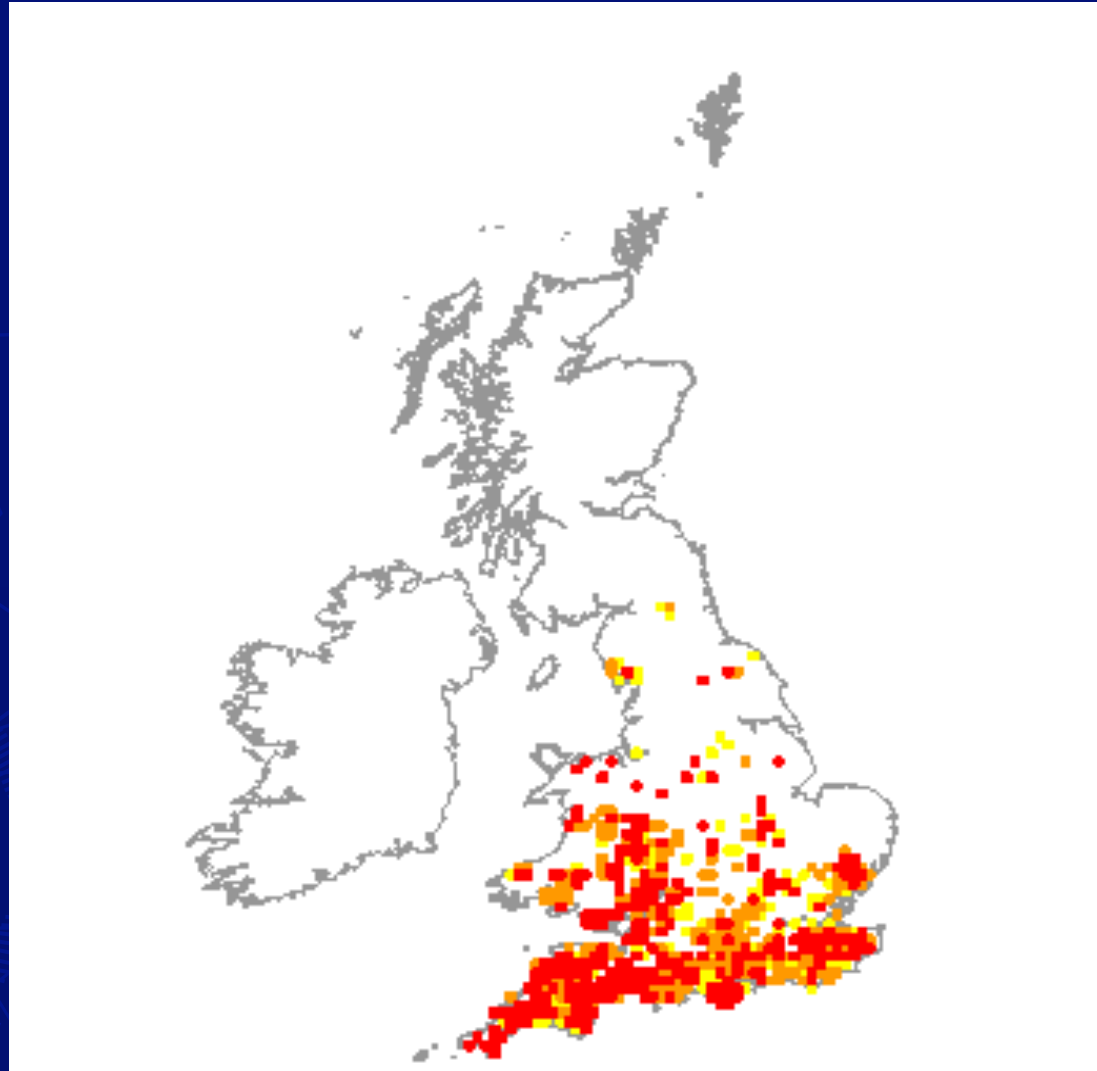
Monarch Butterfly Observation Points in Eastern US



Project Budburst's Observation locations



## Dormouse survey



British National Biodiversity Network

# Reluctance Lingers

- ▶ Awareness?
- ▶ Participant reliability
  - Availability and turnover
  - Dedication to project, methods, and protocols
  - Levels of knowledge and effort
- ▶ Data quality
- ▶ Significant investment of time and effort to gain confidence



Newcombe Forest Surveys

# A Future for Citizen Science?

I. Broad-scale collaborations where many observers are required to detect patterns

Biodiversity

Phenology

Migratory behavior

Climate change

II. Collaborations with agencies for local land and water management

Thank You





# What makes a citizen/science collaboration successful?

## ► Civic-minded scientists

- A willingness to engage with citizens
- A willingness to share knowledge
- Respect for the knowledge, dedication and curiosity citizens can bring
- Trust
- Patience

# More on Success

- ▶ Science-minded citizens
  - Curious about the natural world
  - Amateur naturalists already
    - ▶ Bird watchers
    - ▶ Rock hounds
    - ▶ Gardeners
  - Willingness to gather and share knowledge
- ▶ Patience

# Practical Considerations for Success

- ▶ Recruiting: understand the project need
- ▶ Explain the project thoroughly
- ▶ Provide clear expectations
- ▶ Provide adequate training and tools
- ▶ Support and communication throughout the project
- ▶ Follow up with participants
  - Use the data or explain why
  - Close out the project with participants

We can all be in this together

